

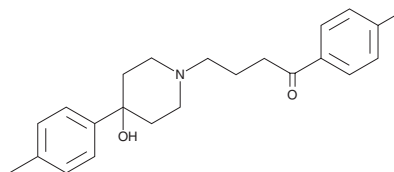
# PRODUCT INFORMATION



## Moperone

Item No. 21968

**CAS Registry No.:** 1050-79-9  
**Formal Name:** 1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-methylphenyl)-1-piperidinyl]-1-butanone  
**Synonyms:** Luvatren, Methylperidol, NSC 170974  
**MF:** C<sub>22</sub>H<sub>26</sub>FNO<sub>2</sub>  
**FW:** 355.5  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Moperone is supplied as a solid. A stock solution may be made by dissolving the moperone in the solvent of choice, which should be purged with an inert gas. Moperone is slightly soluble in chloroform and ethyl acetate.

### Description

Moperone is a dopamine D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub> receptor antagonist (K<sub>i</sub>s = 0.7, 14, and 27 nM, respectively, in NIH3T3 cells expressing the human receptors).<sup>1</sup> It also inhibits *E. electricus* acetylcholinesterase (AChE; K<sub>i</sub> = 120 μM) and is a histamine H<sub>1</sub> receptor inverse agonist (IC<sub>50</sub> = 794 nM for the human receptor).<sup>2,3</sup> Intraocular administration of moperone (0.5% w/v) induces ocular hypotension in normotensive rabbits.<sup>4</sup> Formulations containing moperone have been used in the treatment of schizophrenia, psychosis, epilepsy, and alcohol withdrawal syndrome.

### References

1. Burstein, E.S., Ma, J., Wong, S., *et al.* Intrinsic efficacy of antipsychotics at human D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub> dopamine receptors: Identification of the clozapine metabolite N-desmethylclozapine as a D<sub>2</sub>/D<sub>3</sub> partial agonist. *J. Pharmacol. Exp. Ther.* **315**(3), 1278-1287 (2005).
2. Michalek, H. Inhibition of cholinesterase and acetylcholinesterase *in vitro* by butyrophenone neuroleptics. *Biochem. Pharmacol.* **22**(9), 1067-1074 (1973).
3. Bakker, R.A., Nicholas, M.W., Smith, T.T., *et al.* In vitro pharmacology of clinically used central nervous system-active drugs as inverse H<sub>1</sub> receptor agonists. *J. Pharmacol. Exp. Ther.* **322**(1), 172-179 (2007).
4. Chiou, G.C.Y., Li, B.H.P., and Chiou, F.Y. Effects of dopamine antagonists injected through vortex veins on intraocular pressure. *J. Ocul. Pharmacol.* **5**(4), 281-291 (1989).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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